

Ordering LANCE data

LANCE is part of the Earth Observing System Data and Information System (EOSDIS) and provides near-real-time capabilities for applications developers and operational agencies. To find out more information about data products available through LANCE and how to order these data, please visit:

<http://earthdata.nasa.gov/lance>

Instrument	Product Categories	Average Latency
AIRS	Radiances, Temperature and Moisture Profiles, Clouds and Trace Gases	75–140 minutes
MLS	Ozone	75–140 minutes
MODIS	Radiances, Cloud/Aerosols, Water Vapor, Fire, Snow Cover, Sea Ice, Land Surface Reflectance, Land Surface Temperature	90–145 minutes (Latency excludes daily Land Surface Reflectance)
OMI	Ozone, Sulfur Dioxide, Aerosols	100–165 minutes (Latency excludes Level 3 Ozone)

AIRS - Atmospheric Infrared Sounder (Aqua)

MLS - Microwave Limb Sounder (Aura)

MODIS - Moderate Resolution Imaging Spectroradiometer (Terra and Aqua)

OMI - Ozone Monitoring Instrument (Aura)

To download LANCE data, please register with the User Registration System: <https://urs.eosdis.nasa.gov>. For questions regarding user registration, email: support@earthdata.nasa.gov

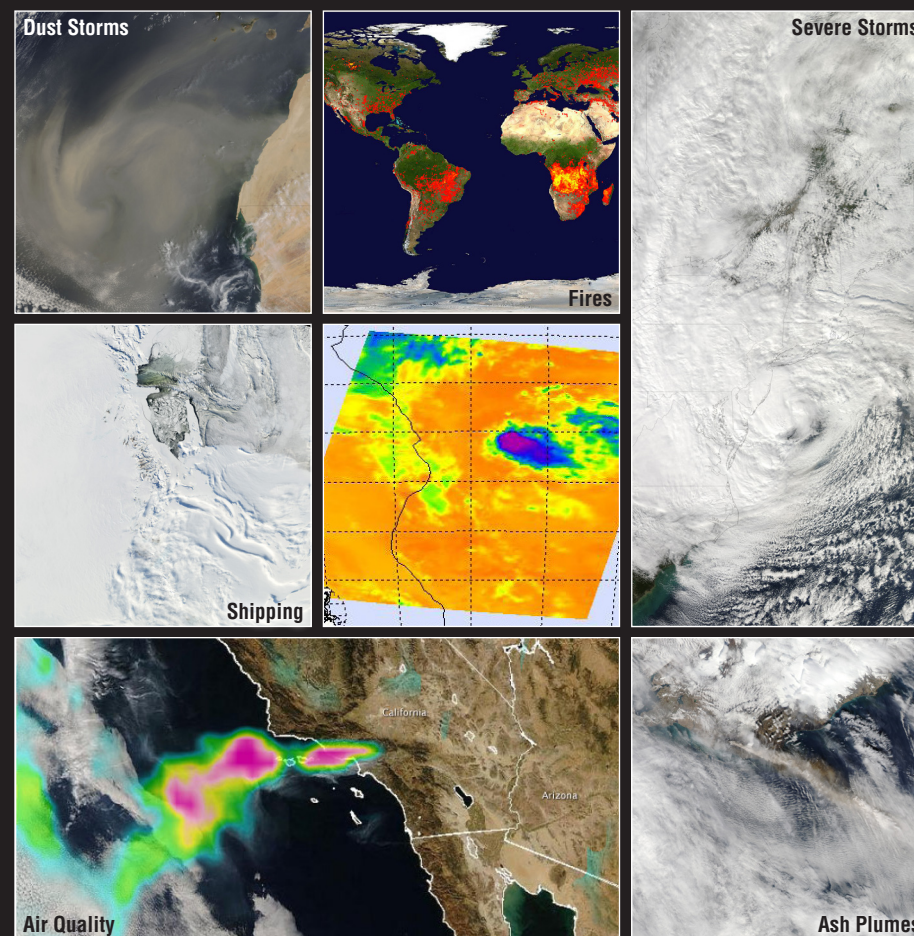
National Aeronautics and Space Administration



LANCE

Land Atmosphere Near-real-time Capability for EOS

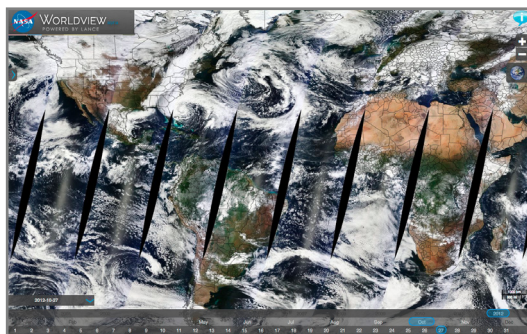
LANCE provides access to near real-time NASA data (<3 hours from observation) from AIRS, AMSR-E, MLS, MODIS, and OMI instruments onboard NASA's Earth Observing System (EOS) satellites- Terra, Aqua and Aura. End-users utilize these products for a wide range of applications ranging from weather forecasting and climate prediction, to monitoring and management of natural hazards such as fires, drought, and floods.



Tools for viewing near real-time imagery

Worldview

LANCE imagery (50+ products) can be viewed in Worldview, a new tool from EOSDIS, that provides the capability to interactively browse full resolution imagery.

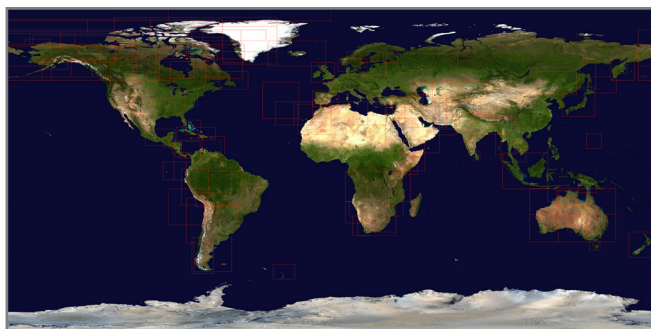


Global Imagery Browse Services (GIBS)

On the backend, Worldview is supported by several types of web mapping services for users who want to directly access imagery in their own web mapping interface or client.

Rapid Response

The Rapid Response component of LANCE enables users to view and download images for a large number of user-specified, geographically sub-setted images in GIS-compatible format.



Fire Information for Resource Management System (FIRMS)

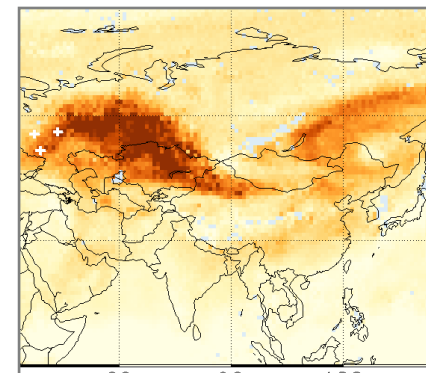
FIRMS allows users to subscribe to near real time, daily and weekly fire email alerts for their area of interest. FIRMS provides MODIS fire data for viewing in Web Fire Mapper and for download in a variety of data formats.



Key application areas for new products

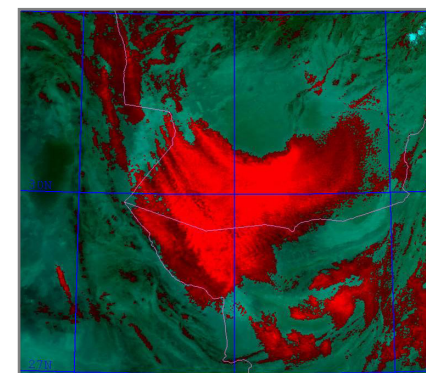
Air Quality

Near-real-time AIRS data from LANCE can be used to track propagation of toxic gases like Carbon Monoxide (CO) from massive fires. For example in the summer of 2010 a cloud of CO was visible from AIRS observations. The cloud of CO persisted for a month and by the second week of August stretched over thousands of kilometers, across Russia and in to parts of Northern China.



Dust Detection Over Land

MODIS NRT images from LANCE are being used by agencies with the Department of Defense to monitor and predict dust storms. This information can dramatically improve resource allocation in remote areas and help promote aircraft safety.



Drought Monitoring

Agro-climatic monitoring programs and global food security risks are monitored using MODIS NRT data from LANCE. There are several global/regional scale systems in place including a Famine Early Warning System (FEWS NET), a multi-agency effort that reports on drought and food shortages daily.

